

What is claimed is :

1. Packet processing method using a multiple fault tolerant network structure including dual nodes connected as a ring shape separately having two input lines and two output lines, wherein the one output line of the node is connected to an input line of an adjacent node, the other output line of the node is connected to an input line of a node next to the adjacent node, the each node selects one packet after receiving two inputs and disuses the other packet and transmits the select packet through the two output lines at the same time, comprising :

receiving the packet through the input line operating normally after checking the input lines :

transmitting the packet to a host when the node is an object node of the received packet ;

disusing the received packet when the object node of the received packet is a node adjacent to the node after checking it whether the adjacent node is the object node of the received packet ; and

transmitting the two duplicated packets through the output lines when the object node of the received packet is not the adjacent node.

2. The packet processing method using the multiple fault tolerant network structure according to claim 1, wherein the receiving process checks the input line connected to the adjacent node, and checks the other input line connected to a node next to the adjacent node when the input line connected to the adjacent node is not the normal,

3. The packet processing method using the multiple fault tolerant network structure according to claim 1, wherein the node comprises :

two input ports connected to the input line ;

5 a packet select mean for checking whether the packet is normal by receiving the packet from the input port ;

a packet judgement mean for judging the object node of the packet selected by the packet select mean and transmitting it to a host connection portion or an output port ;

10 the host connection port for transmitting the packet to the host after receiving the packet from the packet judgement mean ; and

the two output ports for receiving the packet from the packet judgement mean and transmitting it to the output line.

15 4. The packet processing method using the multiple fault tolerant network structure according to claim 3, wherein the packet select mean checks the input line connected to the input port between the two input ports and judges it whether the input line is normal, when the input line is judged as normal, it receives the packet from the input line or when the input line is judged as  
20 abnormal, it checks the other input line, and it receives the packet from the other input line when the other input line is judged as normal or it does not receive the packet when the other input line is judged as abnormal.

5. The packet processing method using the multiple fault tolerant  
25 network structure according to claim 3, wherein packet judgement mean checks

the object node of the packet transmitted by the packet select mean, when the object node of the packet is the node, the packet is transmitted to the host connection portion, when the object node of the packet is not the node but the adjacent node, the packet is disused, when the object node of the packet is neither  
5 the node nor the adjacent node, the packet is transmitted to the output port.

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